Deliverable Report

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Executive Summary

This report describes the test methodology and the tests required in order to validate the COSMOS PV modules according to the IEC and EN standards. Furthermore there is a description of the required testing tools that need to be adapted to be useful to test these specific PV modules. In this first stage the small prototypes of the COSMOS PV modules have been taken into consideration. Test setup and validation is done at KIWA Solar Lab in Italy.

The COSMOS PV modules are both small BiPV (Building Integrated Photovoltaic) module prototypes as well as 60 and large 120 cells modules and given the rear side mounting as well as variability in size special measures in the laboratory need to be taken in order to test common standards such as IEC 61215, IEC 61646 and IEC 61730.

In the Chapter number 1 there is a description of the main tests useful to identify the quality of the COSMOS PV modules. These lists of tests are taken from the common requirements of the market at International level (IEC; EN). A description of the main types of the COSMOS PV modules and some examples of the flowcharts are also added.

In the Chapter number 2 there is a description of the main implementations necessary for the lab in order to be able to test the COSMOS PV Modules. Some tools have to be modified, some other small tools have been bought.

Chapter number 3 describes conclusions.

Chapter number 4 describes possible risks that that might occur during the planned testing sequence.

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